

Western Digital Technologies, Inc.
Serial Number: 09/703,689

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Patent
Docket: K35A0680

REMARKS

Telephone Interview Summary

On 10/21/03 a telephone interview was held with the examiner. The rejections based on the prior art Hansen reference were discussed with respect to the claims, particularly elements (e) – (j) recited in claim 1. The examiner agreed to discuss the below remarks with the supervisor examiner.

Claim Rejections - 35 USC §102

The examiner rejected claims 1, 3-4 and 6 under 35 USC §102(b) as anticipated by U.S. Patent No. 5,163,430 to Hansen et al. The applicant respectfully disagrees.

Hansen discloses a disk drive wherein the servo control of the actuator arm is implemented as a position controlled servo loop wherein the position of the head is determined in response to servo information recorded on the disk (col. 3, lines 21-35). Acceleration and deceleration curves (FIG. 5) are used to generate appropriate VCM control signal to achieve the desired actuator velocity corresponding to the position of the head with respect to a target track (col. 5, lines 58-61). Hansen is concerned mainly with deriving the optimal acceleration and deceleration curves as determined from various parameters of the disk drive (col. 6, lines 1-41). However, Hansen does not disclose any details concerning a velocity controlled servo loop for controlling the velocity of the actuator arm in response to the back EMF voltage across the voice coil when the servo information recorded on the disk is unavailable (such as during ramp loading/unloading). ✓

Since Hansen does not disclose a velocity loop in response to back EMF voltage, Hansen does not disclose all of the elements recited in claim 1, including a back EMF voltage detector, a current detector, an IR voltage detector, a voltage compensator, a control voltage generator, or a stall detector. In particular, Hansen does not disclose to

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implement a stall detector by comparing the current I flowing through the coil to a threshold, and to detect a stall condition if the current I exceeds the threshold for a predetermined interval. Since Hansen does not disclose every element recited in the claims, the rejection under 35 USC §102 cannot be sustained.

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CONCLUSION

In view of the foregoing remarks, the rejections under 35 USC §102 should be withdrawn since Hansen discloses a position controlled servo loop using servo sectors rather than a velocity controlled servo loop using back EMF voltage, and therefore Hansen does not disclose or suggest a back EMF voltage detector, a current detector, a voltage compensator, a control voltage generator, or a stall detector. The examiner is encouraged to contact the undersigned over the telephone in order to resolve any remaining issues that may prevent the immediate allowance of the present application.

Respectfully submitted,

Date: 10/22/03By: 

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CERTIFICATE OF MAILING

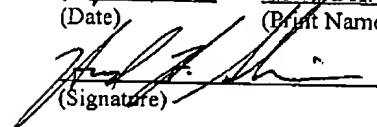
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:

10/22/03

(Date)

Howard H. Sheerin

(Print Name)


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